

**The quality of Blended education in the light of Covid-19  
study from the point of view of a sample of Helwan  
University students**

اعداد

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**Abstract:**

In the light of the Covid-19 sweeping across most of the countries in the world and what it imposed in all educational institutions that have switched to e-learning instead of direct education that allows physical closeness yet may pose a threat to transmit infection. Nevertheless, blended education appeared to solve many problems. This study aimed at investigating the role of education quality in blended learning in the light of Covid-19 from the point of view of a sample of Helwan University students. This can be measured through the following indicators: quality of teaching in blended learning, student interaction and engagement, clarity of goals and standards, quality of online resources, appropriate assessment, appropriate workload, student management, and overall satisfaction with the online experience. A crucial assessment tool of the indicator is considering student's perspectives by the Accreditation Quality Assurance Authority (AQAA). This indicator reflects the readiness of the technological environment at Helwan University, the capacity of blended learning method on providing electronic educational opportunities, and the success of designing educational programs in occupying students and providing them with educational elements such as activities, electronic resources, electronic evaluation, communication, and live interaction in proportion to the content of the courses within the University of Helwan.

**Keywords:** Blended education, Covid 19, Quality.

**Introduction:**

Covid-19 has swept most countries in the world which forced all educational institutions to switch from direct education to e-learning. Around 1.5 billion children and youth in 188 countries in the world have had to survive from the disease. Consequently, switching to their homes after schools and higher education institutions closed was obligatory (Affouneh, 2020, p. 63).

The covid-19 pandemic has created the largest disruption in education systems in history, affecting about 6.1 billion students in all continents along with the scientific community in more than 190 countries. 94% of universities and other places of education were closed, and the proportion raised to 99 percent in low- and middle-income countries. (Hodges. et. el, 2020, p. 85), there is no doubt that higher education is crucial in any region of the world (Aljaser, 2019, p.34)

Consequently, the postmodern era in which we live now is characterized by the information revolution, the explosion of knowledge, the rapid rhythm, the shift from material investment to intellectual investment, and other transformations, all of which an accompanied by massive and continuous changes in the demands of societies as traditional education methods have become mandatory to develop. Requirements of modernity have mandated the development and improvement of the university, increasing its effectiveness in general, and achieving the quality of the educational process within it. Accordingly, a new generation will be capable of competing and achieving the aspirations of this society (Sahu, 2020, p. 63).

Distance education or e-learning has long been considered with controversy over the need to integrate it into the educational process. Before Covid-19, however, it was an alternative with urgent necessity to continue education in conditions that impose physical distancing (Koumi,2006, p.85), and believing that e-learning came as a result of technological developments, especially after the educational process was directly affected by the industry and the development of technology (Artificial Intelligence)

and internalization as well as the information technology revolution that stormed the classroom and became an integral part of it.

This is what was indicated by the study of Al-Sayed, 2011 where blended and electronic education may contribute to modifying students' trends in using e-learning technology in the classroom to help them increase their learning motivation, gain the cognitive aspect, and performance. The blended education can also meet their individual needs according to his/her own pace, as well as increase their sense of equality in educational opportunities.

Many problems have come to the surface with the spread of e-learning systems and the increase of their use and employment in the educational process, these include: (Yulia, 2020, p.311) 1. The absence of direct social contact between the elements of the educational process teachers, students, and administration negatively affects the learners' social communication skills. 2. The application of e-learning systems requires an infrastructure of devices and equipment that requires high cost which may not be available in many cases in different educational systems. 3. E-learning systems require that teachers and students be able to use e-learning technology skills. 4. Difficulty conducting formative and final evaluation processes with ensuring their credibility especially when the course includes practical performance skills. 5. Inadequate e-learning systems for some groups as well as inadequacy for some curricula and academic courses, especially those that require practical skills.

Consequently, it was obligatory for a new learning system that combines the advantages of e-learning with the advantages of traditional learning (Face to Face) which is called "Blended Learning". In blended learning, it does not eliminate e-learning or traditional learning rather it combines both to obtain better productivity at the lowest possible cost. Blended learning uses e-learning combined with traditional classroom learning in the teaching and learning processes so that they participate together in the completion of this process (Bashir, 2019, p. 611)

A study by (Abu Musa & Al-Sous, 2014) indicated that blended learning improved students' achievement level reduced nearly half the learning time, as well as half the cost by mixing direct e-learning, self-advancement, and face-to-face classroom learning.

Quality is an important factor in a global competition for many reasons including intense global competition and customer demand for better quality. Therefore, institutions have realized that achieving benefits requires providing high-quality services and products for the sake of competition and educational institutions are one of these institutions. Educational institutions operate in a very competitive environment worldwide driven by increasing demands for learning from both local and international students. As a result, the managers of these institutions realized that improving the quality of services was vital to achieve customer satisfaction and continue in the international competitive market. Achieving this requires educational institutions to know their customers and identify their needs thus, many educational institutions have adopted the principles of Total Quality Management (TQM) which is concerned with improving the quality of education and leads to improving performance through the participation of each institutional unit to achieve excellence in institutional work. (Mohsin & Trimmer, 2018, PP.1-2).

Thakkar (2006) has indicated that educational institutions have been subjected to multiple pressures to shift their focus from quantitative expansion to the quality presented. The growth and survival of these institutions completely depend on the competitive pattern of work, the opinions of stakeholders about their performance, the

contribution to economic growth, and the high level of quality of their services that achieve customer satisfaction.

Thakkar has considered excellence in total quality at present as the way to achieve global competitiveness. Comprehensive quality management is the group of efforts at the enterprise level that are made through the full participation of all workforces, focusing on continuous improvement to achieve customer satisfaction and this philosophy is its main goal meeting the needs of internal and external customers, and this is one of the important aspects of total quality improvement programs in educational institutions in terms of the need to improve customer satisfaction, and to emphasize employee relations, productivity, and financial performance. (Shen, X. X., 2000, P.282)

Recently, quality of education in Egypt has become a priority with continuous improvement and investing in it that includes specifications and characteristics of predetermined outputs and achievement of these specifications, in addition, all the necessary equipment vital for accomplishing the educational process to achieve its goals. Hence, education quality is achieving the best levels of performance for the elements of the educational process (inputs - operations - outputs) by providing an appropriate work environment in the general education system according to the reference of the national standards for education to obtain the desired outputs. (Hafez, 2012, p. 83)

The quality of education in Egypt is aimed at raising the efficiency of the educational process outputs at various levels of education especially in university graduates through planning their future and attitudes as well as raising the efficiency of graduates and upgrading their skills. Quality in education also looks forward to the education to be internationally recognized which is what the graduates lack at present and one of the most important reasons for emphasizing the importance of implementing comprehensive quality at the university stage in Egypt is dissatisfaction with the performance of universities to their functions and the societal changes that have affected the environment in which universities are in Egypt. As well, the strengths of the growing market, competition in the field of university and higher education, aspirations of students to provide them with quality skills, and the aspiration of specialists to pay attention to the quality of performance in universities. (Muhammad, 2008, pp: 163-164)

Providing adequate decentralization in university administration and applying quality standards for education in universities is a comprehensive quality contract since the current decade. The graduates will shape the future of their lives, their outputs, and quality affect the quality of higher education inputs and therefore, the quality of the university workforce. (Al-Ajmi, 2007, p. 22)

Improving the performance of modern organizations or institutions, including universities, constitutes a global concern in all countries of the world. In addition, the ability of any society to manage its vital institutions and programs not only effectively and efficiently, rather with fairness and innovation, is one of the most important characteristics that distinguish societies from one another (Al-Daraka & Al-Shibli, 2012, p. 128). The performance suffers from the predominance of quantity over quality and from a severe inability to meet the requirements of a new era, its characteristics being the information revolution that changed production methods and patterns, (Al-Aqili, 2001, p. 65).

Given that our contemporary world is vast and constitutes of many challenges to improve the quality of education, therefore, we needed to develop a new philosophy

for the development of education aimed at introducing the concept of total quality, reviewing the integrated educational system, and adapting it to comply with the information era for several reasons. Perhaps the most important challenges are scientific, technological, economic, the increasing social demand for education, the need to employ available resources, achieve sustainable development, changes in lifestyle, and the application of comprehensive quality in higher education programs. the urgent matter to interact and deal efficiently with the variables of an era characterized by the acceleration of knowledge and technology competition between individuals, groups, and institutions, and the escalation of conflict. (Tamam, 2010, p. 14). Hence, the major goal of educational systems is not to provide education to every citizen but to ensure that education should be provided with high quality (Al-Najjar, 2009, p. 85). This research answers the following questions:

1. What is the quality of the integrated education in the light of Covid-19 from the point of view of a sample of Helwan University students? Which can be measured through the following indicators?
  - Quality of teaching in blended learning.
  - Student interaction and engagement.
  - Clarity of goals and standards.
  - Quality of online resources.
  - Appropriate assessment.
  - Appropriate workload.
  - Student management.
  - Blended learning and overall satisfaction with the online experience.
2. What is the effect of gender for students enrolled in the university on their perception of the quality of blended education?
3. What is the impact of the academic specialization of students affiliated with the university on their perception of the quality of blended education?

**The importance of this study:**

This study seeks to develop indicators of the quality of blended education at Helwan University and can be used in developing the elements of the educational environment such as the delivery, presentation of content, interaction, educational design, and development to increase its effectiveness, and it can also shed light on the best educational methods that can be used in the absence of studies and applied research in the Arabian countries which examine the impact and effectiveness of the blended learning method within the limits of the researcher's knowledge and effort.

**Objectives of the study:**

1. Evaluating the quality of education built in the light of Covid-19 from the point of view of a sample of Helwan University students.
2. Determining the effect of gender for students affiliated with the university on their perception of the quality of blended education.
3. Determine the impact of the academic specialization of students affiliated with the university on their perception of the quality of blended education.
4. Developing a proposed conception to improve blended learning.

**The theoretical part of the study:****First: the concept of blended learning.**

Many researchers in the field of the use of information technology in education have dealt with the concept of blended learning which is sometimes called a mixture, hybrid, author, combinatorial or multiple approaches; definition and analysis as follows:

Blended learning is also defined as learning that blends the characteristics of both traditional classroom education and online learning in an integrated model, taking advantage of the maximum available technologies from both (Schmith & Vanga, 2007).

Al-Feki (2011) has also defined blended learning as “a combination of traditional teacher-directed training, simultaneous online conferences, and asynchronous self-paced study.

AL-sayed (2012) has defined blended learning as a formula in which e-learning and its tools are combined with classroom learning in one framework where e-learning tools are used in theoretical and practical lessons with the teacher being with his/her students face to face at the same time.

a. The relationship of this type of blended learning to educational technologies. Blended learning has historical stages linked to its appearance as a term and there are common denominators between it and educational technologies. We may find the history of blended learning as the history of educational technology or as the history of computers. Blended learning is inseparable from the science of teaching techniques so, we find its roots at every stage but, it develops with the development of time.

B. What is incorporated into the blended learning environment: (Al-Feki, 2011) indicated that blended learning is a combination of instructor-led training, synchronous online conferencing, and asynchronous self-paced study. The elements that must be incorporated in education are as follows: (Al-Feki, 2011)

- Diverse presentation media (traditional and internet-based).
- Various learning events (self-paced individual collaborative and group-based)
- Electronic performance support and knowledge management.

- Inclusion may be represented in the dimensions of blended learning as mentioned (Al-Sayed, 2011). These dimensions lie in:

1. Blending direct and online learning with indirect learning.
2. Blending self-stepping and direct learning.
3. Mixing planned and unplanned learning.
4. Mix custom content (prepared as needed) with ready-made content.
5. Blending learning and practice.

**C. Blended learning objectives: there are two types of blended learning objectives.**

1: General Key objectives of blended learning:

- Improving the quality of education.
- Increasing student participation.
- Increasing the effectiveness of learning.

2: Detailed procedural goals for blended learning: where each of (John & Bagels, 2012) indicated a set of goals that blended learning seeks to achieve, such as:

- Enhancing student performance by employing technological innovations.
- Increasing direct and indirect interaction with teachers and educational content.
- Reducing expenses.
- Developing the students' knowledge and performance side.
- Democracy in education and self-learning.

D. Benefits and advantages of combined learning: When we combine any two educational components with traditional electronic, this merging is either iterative or one of them supports the other, or there is an organized and structured scheme for the merging process that results in a new type of learning that is not present in both types of learnings the pros are either reformulation and improvement or a new type that does not exist in both types and will not appear except through merging (John & Bulges, 2012) and both have indicated that blended learning has many advantages which are summarized as follows:

- The possibility of changing our attitudes, not only towards the place and time of learning practice but, towards the resources and tools that support learning.
  - Reducing learning costs compared to e-learning, saving effort and time for the learner.
- Providing flexibility in learning time and enrollment time.
- Providing opportunities for simultaneous interaction along with opportunities for coordination and asynchronous cooperation.
- Considering the individual differences between the learners so that each learner learns according to his/her needs and abilities.
- The widening of the learning area to include the world and not limited to the classroom.
- The student can learn concomitantly with his colleagues without being behind his colleagues.



e. Downsides of blended learning:

As indicated by John and Biggles (2012), blended learning has many drawbacks and problems which can be summarized as follows:

- The reliance of blended learning on technologies that is still unreliable. The Internet is still ineffective in some parts of the world, especially rural or remote places.
- Using it effectively requires the student to be familiar with the use of technology well.
- The adoption of blended learning on computer devices costs a lot of money, maintenance, and installation work.
- The low level of actual participation of specialists in curricula in the manufacturing of integrated e-courses.
- Focusing on the cognitive and soft skill aspects of students more than the emotional aspects.
- Feedback, incentives, and compensation may not be available sometimes.
- The low level of effectiveness of the monitoring, evaluation, correction, attendance, and absence system among students.

**Second: the concept of quality.**

- Language: Whoever is good, i.e., he brings good from saying or doing and is good at something, it will be good (Al-Mujam Al-Wasit, p. 145), and good is the opposite of bad, and a thing finds its goodness in the sense that it has become good (Ibn Manzur, 1995, p. 411).

Idiomatically: As for the idiomatic meaning of quality, it has many forms and is still veiled with some ambiguity. (Ellis) says, "Quality itself is a somewhat ambiguous expression because it contains connotations that refer to both standards and distinctions." The definition of quality adopted by most analysts and decision-makers in higher education is fitness for the purpose and their defense of this definition is since quality has no meaning except for the purpose or purpose of the product or service (Nashwan, 2008, p. 86).

The concept of quality in education can also be defined as a set of conditions and specifications that must be met in the education process to meet the needs of its beneficiaries and prepare efficient outputs to meet the requirements of society accordingly, the comprehensive quality within the framework of the educational institution includes a set of contents, the most important of which are:

- 1- Adopting the method of cooperative teamwork and the number of capabilities, talents, and experiences that the human element possesses in the organization.
- 2- Ensuring continuous improvement and development to improve quality.
- 3- Reducing errors in terms of performing the correct work from the first time which leads to a minimum cost reduction while obtaining the satisfaction of the beneficiaries of the educational process.
- 4- Calculating the cost of quality within the organization to include all works related to the service provided.
- 5- A holistic approach to all areas of the educational system such as goals, organizational structure, working methods, motivation, and procedures.

There are three dimensions of quality in higher education, none of which should be neglected:

1. The academic dimension: it is the institution's adherence to professional, research, and academic standards and levels.
2. The social dimension: it is the institution's adherence to satisfying the needs of the important sectors that make up the society in which it exists and serves.

3. The individual dimension: it is the adherence of the higher education institution to the personal growth of students by focusing on their diverse needs. (Ahmed & Al-Ansari, 2012).

#### **Methodology:**

This study is an evaluation study that aims at evaluating the effectiveness of the quality of blended education applied to students of Helwan University, identifying the variables that may affect the blended learning process and affecting its development, and reaching proposals to improve students' practice of blended education. The current study used a survey formulated to measure the quality of blended education from the viewpoint of the students of Helwan University targeting both genders within the practical and theoretical colleges and for whom the blended education system was applied, many studies and research in this field have been referred to take advantages of its methodology. Data were analyzed using the statistical analysis program (SPSS v.23.0)

#### **Fields of study:**

**Spatial field:** Helwan University was chosen as a spatial field to implement the study and this scope was chosen for the following reasons:

- 1- Availability of the study sample, especially students inside the university.
- 2- The respondents' willingness to cooperate with the researcher.
- 3- The university's approval of the researcher's application of her research to develop blended education.
- 4- The most applied universities in the hybrid education system in Egypt.

#### **The human sample:**

A deliberate sample of (250) students from Helwan University was chosen from different faculties of the university, whether practical or literary disciplines, during the first term of the academic year 2020-2021 for whom blended education system was applied whether blended or direct education and that sample were used to verify the quality of blended education among students of Helwan University, in addition to dealing with some demographic variables such as gender and academic specialization.

- **Inspection framework:** male and female students at Helwan University for the faculties chosen in the study during the academic year 2020/2021 with a total of 52,000 students.

**Inspection unit:** male and female students of Helwan University.

**Sample size:** A sample of male and female students at Helwan University was selected during the academic year 2020/2021 using the random sample method as follows: Table (1) illustrates the study sample.

University	Faculty	Sample
Helwan university	Faculty of Education.	250 male and female students
	Faculty of medicine.	
	Faculty of Science.	
	Faculty of Social Work.	
	Faculty of Arts.	

**Time-domain:**  
The study was implemented from

10/12/2020 until 2/12/2021.

#### **Study Tools:**

The data collection tools were represented in that research using a blended learning quality scale prepared by the researcher and prepared according to societal conditions, by referring to many research tools conducted by researchers in that field.

#### **The scale dimensions:**

- Quality of teaching in blended learning.
- Student interaction and engagement.
- Clarity of goals and standards.
- Quality of online resources.
- Appropriate assessment.
- Appropriate workload.
- Student management.
- Blended learning and overall satisfaction with the online experience.

**Steps to design the scale:** The scale was designed according to the following steps:

- 1- Referred to the theoretical framework of blended learning.
- 2- Referred to previous studies to determine the expressions that are related to each of the study variables.
- 3- Referred to the standards that was conducted in this field such as (Bigger, Kember & Leung; Ginns and Ellis, 2007). These measures have been taken advantage of which were developed by researchers concerning developing the quality of education in general and blended education in a specialized way.
- 4- Referred to some researchers who conducted studies in this field to benefit from their experiences.

#### **Face Validity:**

where the tool was presented to a number (13) members of the faculty at Faculty of Social Service, Helwan University to express an opinion on the validity of the tool in terms of the linguistic integrity of the phrases on one hand and its relevance to the study variables on the other hand and an agreement percentage of not less than (80%) was relied on. Some phrases were deleted, and some were reformulated accordingly, the questionnaire was formulated in its final form by reviewing the literature, books, theoretical frameworks, and previous studies and research that dealt with study variables, and analyzing this literature, research, and studies to reach the different dimensions and related phrases. These dimensions are related to the study problem, in terms of determining the dimensions of the effectiveness of the quality of blended education with students of Helwan University.

#### **Reliability of the tool:**

The reliability of the tool was calculated using the reliability factor (Alpha-Cronbach) for the estimated reliability values of the scale for students for a sample of (20) single students from the study population (from outside the study sample) and the results came as shown in the following table:

Table (2) shows the results of consistency using the coefficient (Alpha - Cronbach) for the blended learning quality scale (n = 20)

Variable	(factor (Alpha-Cronbach))
The quality of blended learning as a whole.	0.86

These levels are acceptable and can be relied upon by the results of the tool. To reach more honest and objective results for the blended learning quality scale, a second method was used to calculate the stability of the tool, using the Spearman-Brown equations split-half. Each variable was divided into two halves, the first section includes the values obtained from the response to the individual expression, and the second section includes the values expressing the even expressions, and the test results came as follows:

Table (3) shows the results of consistency using the Spearman-Brown Equation for Half-Segmentation for the Quality of Integrated Education Scale (n = 20)

Variable	Spearman-Brown equation
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The quality of blended learning as a whole	0.89
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It is evident from the previous table that most of the stability coefficients for the variables have a high degree of stability, and thus their results can be relied upon and the tool has become in its final form.

**Statistical methods:** The study relied on data analysis on the following methods: The data were processed by a computer using the program (SPSS V. 23.0) statistical packages for social sciences and the following statistical methods were applied: frequencies, percentages, and arithmetic mean: the scale was calculated for the responses. The triple-level is by the arithmetic mean =  $k(\text{yes}) \times 3 + k(\text{to some extent}) \times 2 + k(\text{no}) \times 1 / n$  and it is possible to judge the level of quality of blended education for students of Helwan University using the arithmetic mean where the beginning and the end of the scale are for triple responses: yes (three scores), some extent (two degrees), no (one score), data were coded and entered to the computer, to determine the length of the triple scale cells (lower and upper limits), the range was calculated using = largest value - lowest value ( $3 - 1 = 2$ ), the number of scale cells was divided to obtain the corrected cell length ( $2/3 = 0.67$ ), and then this value was added to the lowest value in the scale or the beginning of the scale which is the correct one, to determine the upper limit of this cell. Thus, the length of the cells became as follows:

Table (4) shows the levels of the arithmetic averages.

If the mean value of the phrase or dimension ranges from 1 to less than 1.67	low level
If the mean value of the phrase or dimension ranges from 1.67 to less than 2.35.	Average level
If the mean value of the phrase or dimension ranges from 2.35 to 3.	High level

- Standard deviation, stability coefficient (alpha. Cronbach), and Pearson correlation coefficient R: to test the relationship between two quantitative variables such as age, and Chi-Square correlation coefficient: to test the relationship between two nominal variables such as gender, academic specialization, and Gamma correlation coefficient: it is used to obtain relationships or correlations when it includes order variables that have regular values, such as a scientific qualification.

### Study Results:

Table (5) shows the characteristics of the study sample,  $n = 250$ .

Dimension	Frequencies	Percentage %
<b>- Gender:</b>		
- Male.	122	48.8
- Female.	128	51.2
<b>Total:</b>	<b>250</b>	<b>100%</b>
<b>- Age:</b>		
a- less 18 years.	68	27.2
B- 18-20 years.	101	40.4
C- 20-22 years.	81	32.4
<b>Total:</b>	<b>250</b>	<b>100%</b>
<b>- Academic specialization:</b>		
- Scientific discipline.	132	52.8
- Literary specialization.	118	48.2
<b>Total:</b>	<b>250</b>	<b>100%</b>
<b>- Academic level:</b>		
- The first academic year.	34	13.6
- The second academic year.	42	16.8
- The third academic year.	86	34.4
- The fourth academic year.	56	22.4
- The fifth academic year.	32	12.8
<b>Total:</b>	<b>250</b>	<b>100%</b>
<b>- Do you take direct lectures?</b>		

Dimension	Frequencies	Percentage %
- Yes.	250	100
- No.	-	-
<b>Total:</b>	<b>250</b>	<b>100%</b>
<b>- Do you receive online lectures?</b>		
- Yes.	250	100
- no.	-	-
<b>Total:</b>	<b>250</b>	<b>100%</b>

**The results of the above table show that:**

The percentage of females (51.2%) and the proportion of males (48.8%), and age, the largest proportion of the study sample falls in the age group (18-20 years) at a rate of (40.4%), followed by the age group of (20-22 years) at a rate of (32.4%), followed by the age group (less 18 years) at a rate of (27.2%). As for academic specialization, the results of the study revealed that a scientific discipline came at a rate of (52.8%), followed by literary specialization. By (52.8%), as for the academic level, the third academic year came by (34.4%), the fourth academic year by (22.4%) and the second academic year by (16.8%), then followed by the first group. At a rate of (13.6%) then, followed by the fifth academic year at a rate of (12.8%). As for the question 'Do you take direct lectures?' The responses of all the study samples were (100%), fully agreeing that there are direct lectures. About the respondents 'question: Do you receive online lectures? The responses of all the study samples were (100%), fully agreeing that there are online lectures.

Table (6) shows the quality of teaching in blended learning. (n = 250).

Phrases	Answers of student						Mean	SD	R
	Agree		Some Times		Disagree				
I received a lot of direct feedback letters from my teacher.	176	70.4%	51	20.6%	23	9%	2.61	0.65	6
The professor's direct, lively responses motivated me to learn more deeply.	208	83.1%	23	9.5%	19	7.5%	2.76	0.58	5
The professor helped us direct the live discussion among the students.	229	91.5%	11	4.5%	10	4%	2.88	0.44	1
The teacher's life and direct interaction with me encouraged me to get the most out of my learning.	212	85 %	20	8%	18	7%	2.78	0.56	3
The professor's lively responses motivated me to work on direct education more.	203	81.1%	36	14.4%	11	4.5%	2.77	0.52	4
I have not received enough live feeds from my teacher.	160	64%	64	25.5%	26	10.5%	2.54	0.68	7
The professor has managed the type of discussions among the students.	219	87.4%	21	8.5%	10	4%	2.83	0.47	2
Variable as a whole							2.7	0.55	High

**The results of the above table show that:**

Regarding, responses of the students on the axis of quality of teaching in blended learning, it has been noticed that all the learners' responses were positive with an arithmetic average (2.7) where it came in the first order, The professor helped us in directing the live direct discussion between students with an arithmetic mean ( $2.88 \pm 0.44$ ) with the second order. The teacher helped focus the type of discussions between students with a mean of (2.83) and a standard deviation (0.47), and it came in the third order. The interaction of the direct and live teacher with me encouraged me to get the most of my learning with my average ( $2.78 \pm 0.56$ ), and it came in the fourth-order. The live responses of the professor motivated me to work on direct education more with my arithmetic mean of ( $2.77 \pm 0.52$ ), and it came in the fifth order. The direct live professor's responses motivated me to learn more deeply with my average ( $2.76 \pm 0.56$ ), and it came in the sixth training. I received a lot of direct feedback letters from my teacher came with a mean of (2.61) and a standard deviation (0.65) and it came in the seventh grade. I have not received any adequate live feed messages from my teacher with an arithmetic mean ( $2.54 \pm 0.68$ ). Looking at the scale items, it reflects the educational effort made by the professor in practicing the requirements and entitlements of the blended learning method which falls within the required role of directing learners and providing them with timely feedback, encouraging and motivating them to be preoccupied with opportunities. Educational and discussions related to the academic content of the course during their teaching in the context of blended learning which is one of the semester practices and one of the challenges facing the professor in the blended learning process.

Table (7) shows the student interaction and engagement (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
Some of my thoughts became clear after reading other students' contributions submitted in a live and direct way.	205	81.6%	33	12.9%	12	4.5%	2.78	0.51	3
I interacted with the direct and live contributions of other students even if their work was not evaluated.	210	84.1%	29	11.4%	11	4.5%	2.80	0.50	2
The live and direct contributions of other students helped me to understand my thoughts from a new perspective.	216	86.6%	20	8%	14	5.4%	2.81	0.51	1
The live and direct contributions of other students encouraged me to search for additional sources of knowledge.	145	58.1%	19	7.5%	86	34.4%	2.23	0.57	4
Variable as a whole							2.65	0.52	High

**The results of the above table show that:**

Regarding interaction and engagement in which it is noticed that the average student responses were positive by (2.65) on the triple scale, and the percentage of approval for all items exceeded (82%) where it came in the first order. To understand my thoughts from a new perspective, with  $2.81 \pm 0.51$ ) and came in the second order. I interacted with the direct and live contributions of other students even if their work was not evaluated with an arithmetic mean ( $2.80 \pm 0.50$ ) and came in the third order. Some of my thoughts became clear after reading the contributions of other students sent in a live and direct way with an average ( $2.78 \pm 0.51$ ) and came in the fourth-order. I was encouraged by the live and direct contributions of other students that I search for additional sources of knowledge with a mean ( $2.78 \pm 0.57$ ). This result indicates that the respondents found that the direct contributions of other learners were a factor encouraging them to interact that contributed to the exchange of opinions and comments with others and to clarify their ideas from a new perspective. However, those contributions were encouraging to search for additional resources of knowledge, and this helped expand the conceptual structure of the students' system.



Table (8) shows the clarity of goals and standards (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
The instructions required to understand the objectives and contents of the electronic unit were clear and easy.	185	73.8%	39	15.4%	26	10.9%	2.63	0.68	3
The instructions regarding how to use live discussions were clear to me.	215	86%	21	8.5%	14	5.5%	2.80	0.52	1
Information required for the assignments was consolidated into a single location dedicated to living to learn.	206	82.5%	23	9%	21	8.5%	2.74	0.60	2
Variable as a whole							2.73	0.60	High

**The results of the above table show that:**

The responses of the students of Helwan University on the clarity of goals and standards axis revealed that all the responses were positive about the instructions and directions, especially in dealing with the elements of e-learning for the courses they obtained. The average response of the students on this axis was (2.73), where it came in the first order. The instructions, especially on how to use live discussions were clear to me with an arithmetic mean ( $2.81 \pm 0.52$ ) came in the second order. The information required for the assignments was integrated into one place dedicated to living learning with a mean of ( $2.74 \pm 0.60$ ) and it came in the order. The instructions required to understand the objectives of the electronic unit and its contents were clear and easy, with an arithmetic average ( $2.63 \pm 0.68$ ) came in third place. And this result is an indication of the ability of the electronic educational design of academic courses to manage and guide students easily and clearly which motivates the student to stay and interact with the educational elements.



Table (9) shows the quality of online resources (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
The live learning materials included during the class are extremely good at explaining things.	205	82.1%	26	10.4%	19	7.5%	2.74	0.56	2
The live, live learning materials are designed in a way that students can do their best.	214	85.5%	20	8%	16	6.5%	2.79	0.54	1
The live educational materials are designed in a way that makes the topics interesting for students.	192	76.7%	26	10.4%	32	12.9%	2.64	0.70	4
Live educational materials helped me learn through face-to-face situations with the professor related to the class.	199	79.5%	40	16%	11	4.5%	2.75	0.53	3
Variable as a whole							2.73	0.58	High

**The results of the above table show that:**

Responses of students of Helwan University on the axis of quality of online resources showed that these students were generally positive towards electronic sources for academic courses with an average of (2.73) where it came in the first order. Live educational materials are designed in a way that makes students present their best with arithmetic mean (2.79±0.54) and came in the second order. The live educational materials included in the unit of study are considered good for the maximum extent in explaining things with an arithmetic mean (2.74±0.56) and came in the third order. Live educational materials helped me to learn during the situations that are face-to-face with the professor related to the study unit with arithmetic mean (2.75±0.53) in the fourth order. The live educational materials are designed in a way that makes the subjects interesting for students with an arithmetic mean (2.64±0.70). 85.5% of the respondents assumed that the ongoing activities were designed in a way that would make the students present their best and 82.1% of the students asserted that the electronic resources have presented the concepts and in the best possible way. Interestingly, high contribution to learning from educational situations that face-to-face traditionally confirms that e-learning resources were essential to support face-to-face learning.

Table (10) shows the appropriate assessment (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
All I need is a good memory to do outstanding work on the tests (online)	211	84.5%	18	7%	21	8.5%	2.76	0.60	2
Live tests helped me learn effectively.	208	83%	24	9.5%	19	7.5%	2.76	0.58	1
The live educational materials supported some of the core evaluation items presented in the unit.	195	78%	40	16%	15	6%	2.72	0.57	3

Variable as a whole		2.75	0.58	High
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**The results of the above table show that:**

The responses of the students of Helwan University were related to the appropriate assessment axis and it was noticed that the respondents were positive towards the assessment available in the study units with an average of (2.75) and where it came in the first order, direct live tests helped me learn more effectively with arithmetic mean ( $2.76 \pm 0.58$ ) and came in the second order. All I need is a good memory to present outstanding work in the online tests with an arithmetic mean ( $2.76 \pm 0.60$ ) and came in the third order. Live educational materials contributed to support some of the core evaluation items presented in the study unit with arithmetic mean ( $2.72 \pm 0.57$ ) and they agreed with 84.5% that the direct live tests needed an open mind to support the evaluation items in the study unit presented in the e-learning method and 83.3% that the electronic calendar helped them to teach.

Table (11) shows the appropriate workload (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
The workload associated with the parts of the live study unit was large and heavy.	138	55.2%	54	21.4%	58	23.4%	2.32	0.83	3
I generally had enough time to understand the things I needed to learn in a live and direct way.	191	76.5%	20	8%	39	15.5%	2.61	0.74	1
I cannot understand the total workload of the study unit items in a comprehensive manner.	152	60.7%	52	20.9%	46	18.4%	2.42	0.78	2
Variable as a whole							2.50	0.78	High

**The results of the above table show that:**

Regarding the appropriate workload axis on the blended education system, the striking note that the items of this axis have obtained approval compared to the items of the other axes with an average of (2.50) where it came in the first order with an arithmetic mean ( $2.32 \pm 0.83$ ). I had enough time in general to understand the things that I have to learn in a live and direct way with an arithmetic mean ( $2.61 \pm 0.74$ ) and it came in the second order. I cannot understand the total workload of the elements of the study unit comprehensively with an arithmetic mean ( $2.42 \pm 0.78$ ) and it came in the third order. About half of the participants (55.1%) agreed that the volume of work was large and heavy while two-thirds of the participants (60%) confirmed that the size of the elements of direct educational units was so large that it cannot be understood comprehensively. Nonetheless, the blended learning method increased learning opportunities which enlarged students' interest and interaction in practicing various educational activities which were confirmed by the average response of students (2.80).

Table (12) shows the student management (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
The teacher used the live learning environment at the right time to inform students about the results.	208	83.3	23	9.1	19	7.6	2.76	0.58	2
The professor uses the live environment regularly to inform students of the most recent information related to the unit of study.	231	92.5	8	3	11	4.5	2.88	0.44	1

The professor worked to secure the continuous availability of live educational materials throughout the semester.	205	82	28	11	18	7	2.75	0.57	3
Variable as a whole							2.80	0.53	high

**The results of the above table show that:**

The table shows the clear positive responses of the learners which ranged from (82%) to (92%) where the professor used the live environment regularly to inform students about the latest information related to the study unit with an arithmetic mean (2.88±0.44). In the second place, the professor used the live learning environment at the right time to inform students about the results with an arithmetic mean (2.76±0.58). The third order came the professor worked to secure continuous entry of live educational materials throughout the semester with an arithmetic mean (2.75±0.57). This indicates the extent of learners' satisfaction with the position of the course professor in updating the study units than its ability to control the time to inform them about the results and provide access to educational materials which constitutes an element of motivation and a catalyst for learners in continuity along with staying connected with the educational process.

Table (13) shows the blended learning and overall satisfaction with online experience (n = 250).

Phrases	Answers of student						Mean	SD	Rank
	Agree		Some Times		Disagree				
It was clear to what extent live learning resources were related to the calendar.	200	80.1%	32	12.9%	18	7%	2.73	0.58	5
The included live activities helped me understand the activities provided face-to-face by the professor related to the study unit.	216	86.5%	23	9%	11	4.5%	2.82	0.49	3
The relationship between live learning resources and the entire unit of study is clarified on the course site in the educational system.	225	90%	14	5.5%	11	4.5%	2.82	0.46	2
It was clear to me how the site of the study unit relates to the educational system to the entire study unit.	214	85.5%	20	8%	16	6.5%	2.79	0.54	4
I was generally satisfied with the quality of the teaching materials and the live activities related to the study unit.	222	89%	19	7.5%	9	3.5%	2.86	0.44	1
Variable as a whole							2.81	0.50	High

**The results of the above table show that:**

Regarding the axis of blended learning and overall satisfaction with the online experience, the learners' responses were strikingly positive, as the percentages ranged from the frequencies of students' approval of the different items with an arithmetic average of (2.81±0.50) on the triple scale. As it came in the first training, I was generally satisfied with the quality of the educational materials and live activities related to the study unit with arithmetic mean (2.86±0.44) with a second order. The relationship between live learning resources and the real study unit was clarified on

the course site in the educational system with an arithmetic mean of  $(2.82 \pm 0.46)$  and it came in the third order. The live activities included helped me to understand the activities presented face to face by the professor and related to the study unit presented with a mean of  $(2.82 \pm 0.49)$  and it came in the fourth-order. Regarding the question was it clears to me how the site related to the study unit on the educational system with the entire study units? it came with an arithmetic mean of  $(0.79 \pm 0.54)$  and it came in the fifth-order with an arithmetic mean  $(2.73)$  and a standard deviation  $(0.58)$ . It is clear that the extent of the general satisfaction of the participants with the activities and direct educational materials related to the units of study for the courses with a89%.

Table (14) shows the results of the (T) test for independent samples to test the differences between the averages of males and females on the elements of the quality of blended education.

Phrases	Gender	Mean	SD	P-value
Quality of teaching in blended learning.	Male.	2.66	0.35	0.333
	Female.	2.74	0.39	
Student interaction and engagement.	Male.	2.56	0.53	0.010**
	Female.	2.82	0.41	
Clarity of goals and standards.	Male.	2.72	0.40	0.992
	Female.	2.72	0.51	
Quality of online resources.	Male.	2.59	0.50	0.108
	Female.	2.75	0.44	
Appropriate assessment.	Male.	2.54	2.62	0.035*
	Female.	2.76	0.44	
Appropriate workload.	Male.	2.57	0.56	0.264
	Female.	2.43	0.54	
Student management.	Male.	2.54	0.71	0.002**
	Female.	2.82	0.33	
Blended learning and overall satisfaction with the online experience.	Male.	2.72	0.57	0.304
	Female.	2.82	0.39	
The whole variable mean	Male.	2.60	0.44	0.77
	Female.	2.73	0.31	

#### The results of the above table show that:

The effect of students' gender on their perception of the quality of blended education showed an average score of 2.6 for males versus 2.73 in females, and both grades are considered positive on the triple scale yet, the difference between the two degrees is not statistically significant which reveals a positive view of students of both sexes towards this type of education. While comparing the effect of gender concerning the eight scale axes showed that females had a greater significantly different positive outlook than males, especially with regards to the ax's student interaction, evaluation occasion, and experimental communication.

Table (15) shows the results of (t-test for independent samples to test the differences between the averages of the responses of the study sample individuals according to the academic specialization on the elements of the quality of blended education.

Phrases	academic specialization	Mean	SD	Significance
The overall average of all blended learning quality pillars.	- Scientific discipline.	2.74	0.32	0.38
	- Literary specialization.	2.70	0.35	0.35

#### The results of the above table show that:

Regarding the effect of academic specialization on the perspective of students at Helwan University regarding the quality of blended education; it was found that the average score for scientific majors was  $(2.74)$  while for literary majors it was  $(2.70)$ . Although all the grades expressed positive values on the triple scale, the difference

between the two degrees was statistically insignificant. We found that all students with their different specializations had a positive view of the quality of blended education in general.

#### **Discussion:**

Given the positive results of the students' perspective towards the quality of blended education where the students' perspective is one of the evaluation tools used by the AQAA at Helwan University, the average of students' responses on the scale used was (2.71 of 3), in addition to the students' judgment on the blended learning method as a quality indicator, the indicator has reflected the readiness of the technological environment at Helwan University, the ability of blended learning to provide electronic educational opportunities, the ability to design educational programs in keeping students occupied, providing them with educational elements and opportunities such as activities, electronic resources, electronic evaluation, communication and live interaction. This result is consistent with the content of the curricula within Helwan University and this was confirmed by (Abu Musa & Al-Souse's, 2014) study regarding the importance of blended learning and its effectiveness for the student and the teacher. In addition, this prompted us to know why the interest in blended learning emerged its appearance so that the impact of blended learning showed a higher influence on students' achievement than traditional learning (face to face).

The axis of the suitability of work volume revealed that 55% of students believed that the volume of work and the costs required were too large and heavy, while 84% of the students were busy and positively interacting in direct and live contributions that supported learning of interaction and consolidation during blended learning. Consequently, the combined two axes can be considered as indicators that reflect the centrality of the learner in the educational process then this is what the authors of constructive learning theories and modern teaching methods and institutions for accrediting the quality of education in Egypt adopt. This concept is vital to ensure the quality of education and accreditation which encourage transferring the center of the educational process from the teacher to the learner.

This is what was confirmed by (Al-Sayed, 2011) study that completing e-learning affects increasing students' learning retention rate over traditional (face-to-face) and full e-learning and that the challenges and problems facing e-learning such as the absence of the teacher's role, the material cost, and the weakness of scientific discipline responsibility and honesty led to the emergence of blended learning which in turn is considered the natural and logical development of e-learning and this is one of the main reasons that called for interest in blended learning.

The results of the current study also provided evidence of the quality of the elements of the technological environment necessary for the practice of blended learning especially its integrated method represented by the effective internet in terms of availability. These are the basic characteristics required for e-learning in addition to the capacity and speed of transferring information and circulating it efficiently between the learner, the teacher, and the scientific content. The electronic resources for the curricula along with the mentioned characteristics are reflected in the following items of the axes; the quality of education in the integrated context, the quality of electronic resources, the facilitation of heuristic communication, and satisfaction with the e-learning experience.

The students' responses revealed their view of the blended learning method in raising the quality of the educational process, including teaching and designing

traditional electronic education, and it can be considered as a quality indicator that reflects the teacher's ability to combine the two educational environments to provide educational opportunities for students to successfully acquire and achieve the goals set for them, which is demonstrated by the students' positive responses to me. The items of the following axes: student interaction and involvement in e-learning, appropriateness of evaluation, quality of education provided in the context of inclusion, clarity of goals and standards, and appropriateness of workload.

This is also confirmed by (Abu Shukhim, et. el, 2020) study which revealed that the study sample's evaluation of the effectiveness of e-learning in light of the spread of Covid-19 from their point of view was moderate their assessment of the field of continuity of e-learning, the field of obstacles to the use of e-learning, the field of interaction of faculty members with e-learning, the field of interaction of students in using e-learning is medium, and the researchers recommended the necessity and importance of choosing a new model of education, which is blended learning.

Among the results of the study, it is possible to emphasize the readiness of the educational environment, both technical and educational, to begin seriously and professionally to integrate technology into the educational process in various ways to raise the quality of education in general. Technically, no additional measures have been taken to prepare the technical environment required for the application of this study with any techniques or programs or a change in the physical environment for experimentation. Rather, they use of what is available from it indicates the technical readiness of the university institution to meet the requirements of the times. On the other hand, the results of the study indicate the existence of a cultural shift in the university community of Helwan University. As well, the professor, educational activities, and events in the manner of blended education naturally and without the need for training on knowledge and skills before learning which is an expected result of the nature of the technical age and cultural openness.

The results of the current study also revealed the satisfaction of the end-user, who is the focus of the educational process and to whom all efforts are usually directed in educational institutions to achieve their goals by providing educational opportunities and stimulating environments.

A proposed perception from the researcher's point of view to improve the blended education system at Helwan University to improve the quality of education and its educational outcomes as well as the graduate's educational level who have a comprehensive quality in higher education in the blended education system. Taking into consideration, the researcher has tried to develop a proposed concept to develop and improve the integrated education system in light of total quality management and the information and technology revolution to raise the educational level in all its components as well, to keep pace with modern scientific development by adopting a package of strategies. These strategies are as follows:

- 1- Application of comprehensive quality objectives in the educational field, including:
  - a. Controlling and developing the administrative system because of describing the specific roles and responsibilities of everyone in the blended education system and according to his capabilities and level.
  - B. Upgrading students' academic, emotional, social, psychological, and educational levels, as they are the most important outputs of that educational system.
  - C. Improving the competencies of academic supervisors and raising the level of performance of all administrators through continuous training on the blended



education system, and providing an atmosphere of understanding, cooperation, and human relations among all workers in the educational system.

C. Developing the administrative structure of the educational system in a way that facilitates the learning process away from bureaucracy and allows participation in educational decision-making.

D. Raising awareness among students about the education process and its objectives while providing appropriate opportunities for self-learning more effectively through the development of this system.

E. An overview regarding the education process moving away from the division between the elements of higher education, considering the continuous training processes for all stakeholders and participants to develop and improve educational outputs from a competitive viewpoint. In addition to increasing local respect, appreciation, and scientific recognition of educational institutions for the different services provided to students and society by contributing to the development of the local community.

2- Developing the students' role in teaching and learning processes and improving their participation in university life i.e. The student is the primary beneficiary and the key player in all educational activities providing him with the skills of self-learning, research, and obtaining knowledge from its multiple resources dealing with and using it, in a way that provides him with the ability to interact and adapt positively. As well, quality helps students to involve effectively with their environment and society, enabling them to understand civilizations and constructive dialogue with individuals and groups, and thus quality seeks to prepare students with specific features that make them able to experience an abundance of information, continuously changing processes and tremendous technological progress so that their role is not limited only to transferring knowledge, but interacting with this information and making use of it sufficiently to serve the learning process., This stage requires "a person with certain specifications to absorb everything new and evolutionary progressed dealing with it effectively."

3- Building new advanced curricula in its cognitive and technical aspects so that the curricula are integrated with effective media where the existing books are integrated with study software, educational television programs, and the use of the internet to achieve and support the sense of science and technology and the necessity possessing the components and skills dealing with them.

These tools require well-skilled personnel familiar with the use of scientific and technological devices such as computers and symbolic analysis tools. The quality in school curricula is represented in the interest in their contents, clarity of purpose, possibility of realization, and realism in meeting the desires of the beneficiaries (students, parents, and society) which indicates the importance of planning based on quality standards which involve implementing planning accurately under constant and continuous follow-up. In this context, we emphasize the necessity of avoiding randomness and distance from individual decisions.

The quality of the curriculum in this framework means "learning to master." To achieve this ability, consideration should be given to:

A. The curriculum emerges from the philosophy of society to achieve its goals.

B. Ensuring field experimentation of the curriculum before starting to promote it among students in the blended education system.

C. Empowering faculty members by training them on the developed curricula.

D. The necessity of relying on objective evaluation tools to measure the level of mastery.

4- Update teacher's skills and roles via enabling him to use technology distinctly and to be able to play the role of supervisor and mentor for his/her students, as a producer of knowledge and a lifelong learner, given that the teacher is the core focus of the educational process, accordingly, his development process represents the real entrance to the development and update of education. So that his role changes radically to play the role of an active mediator in the educational process to achieve the principle of total quality. We want a teacher who has varied educational and cultural experiences, who can share with his students in completing their readiness to deal with a different future from the present or the past we have lived, all of this requires preparing a different teacher.

5- The introduction and employment of information technology in the university have become obligatory in this era that is witnessing a huge technological revolution and the first step in this direction is to design a model for a university that uses information technology effectively in all aspects of its activities as technology can be employed in the education process.

6- The use of modern methods in teaching is based on studied foundations and research that has been proven correct by experiments, Education technology and its comprehensive sense including methods, tools, resources, devices, and systems used in a specific educational system to achieve specific educational goals that are consistent with the principle of total quality. That means adopting a systems approach, technique, and method of work that proceeds in orderly steps and uses all the capabilities provided by technology according to the theories of teaching and learning.

#### **Recommendations:**

- The necessity of good planning for employing e-learning technology in the blended learning environment and defining the function of each mediator in the program and how to use it accurately by both teachers and learners.
- Ensuring the skills of teachers and learners in using the e-learning technology included in the blended learning environment.
- Ensuring the availability of the various devices, references, and resources used in a blended learning environment whether with learners or in the educational institution so that they do not represent a hindrance to the occurrence of learning.
- The start of the program with a face-to-face plenary session that brings together teachers and learners in which the program's objectives and plan are explained, how to implement it, the strategies used, and the role of each of them in learning events.
- Work on the presence of teachers promptly to respond to inquiries of learners well whether through the Internet or in the classroom face to face.
- Diversity of information resources to meet individual differences between learners.



**References:**

- Abu Musa, Moufid Ahmad & Al-Sous, Samir Abd Al-Salam** (2014) Blended Learning between Traditional and E-learning Amman: Academics House for Publishing and Distribution.
- Abu Shukhim, Sahar Salem, et. el.** (2020) The Effectiveness of E-Learning in Light of the Spread of Covid-19 from the Viewpoint of Teachers at Palestine Technical University (Khadouri), research published in An-Najah University Journal, Nablus, Palestine.
- Affouneh S, Salha S, Khlaif ZN** (2020) Designing Quality E-Learning Environments for Emergency Remote Teaching in Coronavirus Crisis. *Intradiscal J Virtual Learn Med Sci.* 11 (2).
- Ahmed, Mustafa & Al-Ansari, Muhammad** (2012) Total Quality Management Program and its applications in the educational field, Qatar, Arab Center for Educational Training for the Gulf States.
- Al-Ajmi, Muhammad Hassanein** (2007) Accreditation and Total Quality Assurance for General Secondary Education Schools, New University House, Alexandria.
- Al-Aqili, Omar Wasfi** (2001), the Integrated Methodology for Total Quality Management, Amman, Wael House.
- Al-Daraka, Mamoun & Al-Shibli, Tariq** (2012) Quality in Modern Organizations, Amman, Safaa House for Publishing and Distribution.
- Al-Feki, Abdullah Ibrahim** (2011). Blended Learning, Instructional Design: Multimedia, Amman: Dar Al-Thaqafa for Publishing and Distribution.
- Aljaser, A. M.** (2019) the effectiveness of e-learning environment in developing academic achievement and the attitude to learn English among primary students. *Turkish Online Journal of Distance Education-TOJDE*, 20 (2).
- Al-Najjar, Farid Ragheb** (2009), Universities Management with Total Quality, Cairo, Dar Amiral for Publishing and Distribution.
- Al-Sayed, Yousry Mostafa** (2011) Attitudes of Gulf University faculty members towards blended learning in teaching, *Gulf University Journal*, v.37.
- Bashir, K.** (2019). Modeling E-learning interactivity, learner satisfaction, and continuance learning Intention in Ugandan higher learning institutions. *International Journal of Education and Development using Information and Communication Technology*.
- Ginns, p. & Ellis, R.** (2007) quality in blended learning: exploring the relationships between online and face-to-face teaching and learning, the internet and higher education, 10.
- Hafez, Mahmoud Mohamed** (2012) Indicators of Quality Education in Light of Educational Standards, Dar Al-Ilm and Al-Iman for Publishing and Distribution, Cairo.
- Hodges, C., Moore, S. Lockee, B., Trust, T., Bond, A.** (2020) the Difference between Emergency Remote Teaching and Online Learning.
- Ibn Manzur** (1995), the Dictionary of Lisan Al Arab, Beirut, Lebanon.
- John, Allison Little & Bugs, Chris** (2012) Blended E-Learning Preparation. Translation: Othman bin Muhammad, Amman, Dar Al-Masirah for publishing and distribution.
- Koumi, J** (2006). Designing Educational Video and Multimedia for Open and Distance Learning. Routledge, England.
- Mohsin, Ahmed Mansour & Trimmer, Karen:** (2018) Meeting the Cultural and Service Needs of Arabic International Students by Using QFD ", in Erwee, R., et. el. (Eds.), Postgraduate Education in Higher Education, University Development and Administration, Springer, Singapore.
- Muhammad, A. Ahmed** (2008) the functions of school administration in the general secondary stage: organization, direction, supervision: reality and the start towards total quality, Dar Alam al-Kutub for printing, publishing and distribution, Cairo.
- Nashwan, Jamil** (2004), developing the Competencies of Academic Supervisors in University Education in Light of the Concept of Total Quality Management in Palestine "A scientific paper prepared for the Quality Conference in Palestinian University Education held

by the Education Program and the Quality Control Department at Al-Quds Open University in Ramallah in the period 3-5 / 7/2004.

**Sahu, P.** (2020). Closure of Universities Due to Coronavirus Disease (COVID- 19): Impact on Education and Mental Health of Students and Academic Staff. Medical Education and Simulation, Center for Medical Sciences Education, The University of the West Indies, St. Augustine, TTO.

**Schmith, Warren & Vanga, Jerome** (2007), Director of Total Quality, translated by Mahmoud Abdel-Hamid Morsi, Horizons House for International Creativity for Publishing and Media, Riyadh.

**Shen, X. X., Tan, K. C., and Xie, M.** (2000) "Benchmarking in QFD for Quality Improvement", Benchmarking: An International Journal, Vol. 7, No. 4.

**Tamam, Ismail Tamam** (2010), New Horizons in Developing Education Curricula - Considering the Challenges of the Twenty-first Century, Cairo, Dar Al-Hoda for Publishing and Distribution.

**Thakkar, Jitesh, Deshmukh, SG and Shastree, Anil** (2006) "Total Quality Management (TQM) in Self-Financed Technical Institutions: A Quality Function Deployment (QFD) and Force Field Analysis Approach", Journal of Quality Assurance in Education, Vol.14, No. 1.

**Yulia, H.** (2020), Online Learning to Prevent the Spread of Pandemic Corona Virus in Indonesia, Eternal (English Teaching Journal) V.11 (1.)